

## Abstract

Apparatus for mixing and dispensing a multi-component bone cement includes a housing forming a mixing chamber, the housing having respective proximal and distal openings in communication with the mixing chamber, at least a portion of the mixing chamber extending from the proximal opening having a substantially uniform cross-section. A mixing assembly includes a rod extending into the mixing chamber and one or more mixing elements, e.g., a perforated disc or rotating blades, attached proximate a distal end of the rod, the mixing element(s) of a type such that movement of the rod relative to the housing causes the mixing element(s) to mix bone cement located in the mixing chamber. A dispensing piston has an outer periphery sized to seal the proximal opening of the mixing chamber, while allowing the piston to be moved in a distal direction through the chamber, the piston having an opening through which the rod extends, the rod having a stop fixable at a selected location along the rod for engaging and moving the piston distally through at least a portion of the mixing chamber.